

CLAIMS

1. Apparatus for maintaining the orientation of a badge or other insignia on a rotatable member comprising a housing adapted for attachment to the rotatable member, bearing means located within the housing, a support mounted in the bearing means and adapted to carry the badge or other insignia and means for urging the support to a datum position with respect to the housing whereby, in operation, the orientation of the support and any badge or other insignia connected to it may be maintained, relative to the housing, as the housing rotates.
2. Apparatus as claimed in claim 1, in which the housing is moulded from synthetic plastics material.
3. Apparatus as claimed in claim 1 or 2, in which the housing is adapted to be a snap fit in the rotatable member in which it is, in use, to be connected.
4. Apparatus as claimed in claim 3, in which tabs are provided on the housing to enable the snap fit.
5. Apparatus as claimed in any preceding claims, in which the bearing means comprises two bearings.
6. Apparatus as claimed in claim 5, in which the support comprises an axle and the two bearings are axially spaced along the axle.
7. Apparatus as claimed in claim 6, in which the bearings are retained on the axle by means of a retainer.
8. Apparatus as claimed in claim 7, in which the retainer comprises a star washer.
9. Apparatus as claimed in claim 7, 8 or 9, in which the star washer is made of spring steel.

10. Apparatus as claimed in any preceding claim, in which the badge or other insignia are connected to the support.
11. Apparatus as claimed in claim 10, in which the badge or other insignia are connected to the support by means of adhesive.
- 5 12. Apparatus as claimed in any preceding claim, in which the means for urging the support comprises a counterweight.
13. Apparatus as claimed in claim 12, in which the counterweight forms an integral part of the support.
14. Apparatus as claimed in claim 12 or 13, when appendant directly or indirectly  
10 to claim 5, in which the counterweight provides a centre of gravity which is radially off axis and is hung in a manner which both avoids applying a bending movement to the bearings and also loads each of the two bearings equally.
15. Apparatus as claimed in any preceding claim, in which a lens is positioned  
15 closely adjacent to the badge or other insignia.
16. Apparatus as claimed in claim 15, in which the lens is sealed in a housing.
17. Apparatus as claimed in claim 15 or 16, in which an end cap closes off the housing on the side remote from the lens.
18. Apparatus as claimed in claim 17, in which the lens and end cap together form  
20 a sealed assembly.
19. Apparatus as claimed in any preceding claim, in which damping means are provided to resist oscillation of the badge or other insignia.
20. Apparatus as claimed in claim 19, in which the damping is friction based.
21. Apparatus as claimed in claim 20, in which the friction is provided by seals or  
25 the bearing means.

22. Apparatus as claimed in claim 21, in which the friction damping is adjustable.
23. Apparatus as claimed in claim 19, in which the dampings means comprises a centrifugal clutch.
24. Apparatus as claimed in claim 19, in which the damping means comprises speed sensitive fluid damping.
25. Apparatus as claimed in claim 19, in which the damping means is magnetic.
26. Apparatus as claimed in claim 19, in which the damping means is air damping.
27. Apparatus as claimed in claim 1, in which the means for urging the support to a datum position are electronic.
28. Apparatus as claimed in claim 27, in which the electronic means comprises a stepper motor operative to respond to a feedback signal to return the badge or other insignia to the datum position.
29. A vehicle wheel comprising apparatus as claimed in any preceding claim.